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REMARKS

Claims 1-2, 9 and 11 stand rejected under § 102 on the basis of Crane et al. '304. Independent claims 1 and 2 have been amended to more clearly define the present invention over the cited reference, and Applicants respectfully traverse this rejection because Crane et al. do not disclose (or suggest) a head slider that generates different positive pressures in two areas of the slider, when a load acting on the slider body from a head suspension decreases.

Applicants previously argued that Crane et al. are silent about a positive pressure generated on the bottom surface of the slider body during a decrease of a load acting on the slider body in the direction toward a recording medium. The Examiner rejected those arguments. See item 4 of the outstanding Office Action. Though Applicants maintain that Crain et al. fail to disclose or even suggest the subject matter of the then pending claim 1, claim 1 has been amended to further define the present invention over Crane et al.

In general, positive pressure (lift) and negative pressure act on the slider body during flight of the head slider. Concurrently with these pressures, the load (urging force) acts on the slider body based on the elasticity of the head suspension. The head slider is allowed to keep flying above the magnetic recording disk during the rotation of the magnetic recording disk at a higher stability established by the balance among the load, the positive pressure and the negative pressure. See the description of the present Application, page 11, lines 4-11. Amended claim 1 more particularly defines the relationship between the load and the positive pressure acting on the slider body. The amended claims specifically define that

the load acts on the slider body from the head suspension in the direction toward the recording medium.

In the rejection of claim 1, the Examiner merely focuses on the asymmetrical structure on the bottom surface of the slider body shown in Figure 9 of Crane et al. The Examiner insists, only on the grounds of the asymmetrical structure, that the left hand side of the bottom surface should generate a positive pressure larger than the positive pressure generated at the right hand side of the bottom surface, or vice versa, when the load acting on the slider body in the direction toward the recording medium decreases. See the outstanding Office Action, page 3, sixth line from the bottom, to page 4, line 9. Applicants respectfully disagree.

Figure 9 of Crane et al. shows the asymmetrical structure of the bottom surface of the slider 300. The bleed slot 314 is formed on the bottom surface in the left hand side. The bleed slot 314 extends from the leading edge 302 to the trailing edge 304. The bleed slot 314 should exert a large influence upon a positive pressure (lift) acting on the left hand side of the bottom surface. A depth of the bleed slot 314 is one of the primary factors defining function of the bleed slot 314. However, Crane et al. fail to define the depth of the bleed slot 314.

Furthermore, the Examiner ignores the difference between the rail and the air bearing surface. The Examiner focuses only on the area of the rail 312 including the area of the raised bearing surface 340. The Examiner also focuses only on the area of the rail 310

including the area of the raised bearing surface 316. See the outstanding Office Action, item 2, lines 9-11.

In general, the shape and the area of the air bearing surface should exert a large influence upon the bottom surface of the head slider. The shape and the area of the raised bearing surface 340 should exert a large influence upon the left hand side of the bottom surface of the slider 300. Likewise, the shape and the area of the raised bearing surface 316 should exert a large influence upon the right and left hand sides of the bottom surface of the slider 300. Applicants submit that the Examiner should consider these matters.

In the rejection of claim 1, the Examiner focuses on the description of Crane et al., col. 8, lines 9-27. The Examiner insists that the description indicates the decrease of the load acting on the slider body in the direction toward the recording medium. See the outstanding Office Action, item 2, lines 13 and 14. Applicants disagree.

Crane et al. merely describe the flying attitude of the slider 300 at the inner diameter and outer diameter of the recording disc. The slider 300 exhibits larger roll at the inner diameter and the outer diameter than do the sliders shown in Figures 4 and 6. See column 8, lines 25-27. However, the above description does not indicate that the roll of the slider 300 varies according to a decrease in the load acting on the slider 300 in a direction toward the disc surface.

In general, a flow velocity of the air received on the rail and the air bearing surface at the inner diameter of the disk is different from that at the outer diameter of the disk. Likewise, an influent angle of the air toward the bottom surface of the head slider at

the inner diameter of the disk is different from that at the outer diameter of the disk. These factors may cause roll variance of the slider 300 in Crane et al. However, Crane et al. fail to disclose or even suggest the decrease of the load acting on the slider body from the head suspension in the direction toward a recording medium.

The sliders of Crane et al. are the so-called contact start and stop (CSS) type head sliders. See column 5, lines 27-31 and column 8, lines 9-12. In this type of slider, the load acting on the slider body from the head suspension should be maintained at a constant level during flight above the recording medium. Consequently, the Examiner's insistence that the above description indicates the decrease of the load acting on the slider body in the direction toward the recording medium is only an assumption not supported by this consideration.

In conclusion, Crane et al. fail to disclose or even suggest the decrease of the load acting on the slider body from the head suspension in the direction toward a recording medium. Crane et al. also fail to disclose or even suggest the relationship between the load and the positive pressure acting on the slider body defined in amended claim 1.

Claim 2 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Crane et al. in the outstanding Office Action. In response, claim 2 has been amended in the same manner as claim 1. The above arguments regarding claim 1 are applicable to claim 2.

Claims 9 and 11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Crane et al. in the outstanding Office Action. Applicants traverse for the reasons previously given, and the following reasons.

Claim 9 defines that a center of a distribution of the positive pressure moves on the slider body along an imaginary diagonal line from a center of the rectangular surface of the slider body according to a decrease of the load. Claim 11 defines the same subject matter of claim 9. The Examiner rejects claims 9 and 11 based on the same reason of the rejection of claims 1 and 2. See the outstanding Office Action, page 3, line 2. As discussed above, Crain et al. fail to disclose or even suggest the decrease of the load acting on the slider body from the head suspension in the direction toward a recording medium. Craine et al. also fail to disclose or even suggest that the center of a distribution of the positive pressure moves on the slider body along an imaginary diagonal line from the center of a rectangular surface of the slider body. Accordingly, withdrawal of the rejection of claims 1, 2, 9, and 11 is respectfully requested.

New claims 13 and 14 depend from claim 2. Claim 13 defines that the head suspension has an elastic band section so as to establish the load acting on the head slider body. The structure defined in claim 13 is fully supported by the present Specification, page 10, lines 11-14. Claim 14 recites that the load acting on the slider body decreases when the ramp member receives the load bar on the slope. The ramp member and the slope defined in claim 14 are respectively exemplified as the ramp 26 and the slope 27 as shown in Figure 2 of the present Application. Claims 13 and 14 are believed to be allowable, for the reasons given with respect to independent claim 2, and the additional features found in these claims.

For the foregoing reasons, Applicants submit that this Application is now in condition for allowance, which is respectfully requested. The Examiner should contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

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